

IRON FIREMAN



Twenty-Fourth Annual Report

1949



President Banfield with the Branch Managers Cup which is awarded annually to the Factory Retail Branch which has compiled the best sales and operating record during the year. In 1948 the honors were divided between the Milwaukee and Chicago branches when they tied for first place. The 1949 award was earned by Toronto.

24th annual report



COVERING OPERATIONS OF THE
IRON FIREMAN MANUFACTURING COMPANY
FOR THE YEAR 1949

P R E S I D E N T ' S L E T T E R

To the Stockholders

The Iron Fireman Manufacturing Company earned a profit of \$340,733.58 in its 27th year of activity which ended December 31, 1949—equal to 95c per share on the common stock outstanding. This profit fell short of our objective; however, it is felt that the overall results of our operations were reasonably satisfactory when related to current problems in the heating industry, and that the Company is in a favorable position to face the competitive period ahead.

Several factors contributed to the final record, the most important one being our inability to reach our sales objective. A substantial amount of business was lost due to conditions over which we had very little control. Business was unusually slow during the first six months of the year. Dealers were working off their inventories in accordance with the advice of their bankers. In addition, many individuals delayed ordering

equipment that was needed because they anticipated price reductions. By June 30 we had shipped only 29% of the year's total volume.

When price reductions did not materialize and the heating season was imminent, thousands of purchasers placed orders with our dealers requesting immediate installation and the dealers flooded our plants with orders for all types of equipment—particularly oil and gas units. The volume of orders for this equipment was far greater than we anticipated and many times greater than any year heretofore. As a result, it soon became physically impossible to handle all orders and make prompt shipment. In the 3-month period of August-September-October, we actually shipped more units than in the other nine months combined. Even though we did our utmost to fill all orders, we know that a large amount of business was lost based upon

cancellations received from our dealers when they could not satisfy the demands of their customers.

Sales

Net sales for 1949 amounted to \$11,981,565—a decrease of 9.4% from 1948. This decrease was due entirely to a drop in the sale of stokers and replacement parts. Sales for the entire stoker industry were only

and 10 were stoker-fired. This ratio changed in 1949 so that out of every 100 pieces, 48 were oil-fired, 49 were gas-fired, and 3 were stoker-fired.

Marketing and Distribution

Management is continuing its activities in the field of market research, gathering factual information on the condition of various markets for our products.



Dealers from all over the United States and Canada (and one from England) assembled in Cleveland in March for a two-day sales meeting at Hotel Statler. The entire time was packed with well planned business sessions and pre-views of new equipment.

40% of the 1948 volume; and our sales were down approximately the same ratio.

Offsetting the loss of stoker sales, Iron Fireman oil burner sales in 1949 increased 103% over 1948. This compares to an increase of 41% for the oil burner industry. Iron Fireman gas burner sales also increased substantially—234% over 1948. This compares to an increase of 103% for the gas burner industry.

The current trend in the demand for domestic coal, oil, and gas burning equipment is apparent from these figures. In 1948, out of every 100 pieces of automatic heating equipment, 53 were oil-fired, 37 were gas-fired,

Considerable basic data on the major sales areas has been compiled and will be supplemented throughout the year with facts showing current trends.

In the early years of the stoker business, we gave exclusive territories to dealers. When new products were added to the line, such as oil burners, gas burners, furnaces, boilers, and controls, many dealers either were not interested in these expanded fields or were not able to adjust themselves to the overall heating and industrial equipment fields which our products now cover. We have tried to bring all dealers up to the standard necessary to produce the percentage of business that is needed covering the entire line. This has not been possible in many cases, so we are placing additional dealers in certain territories to get full

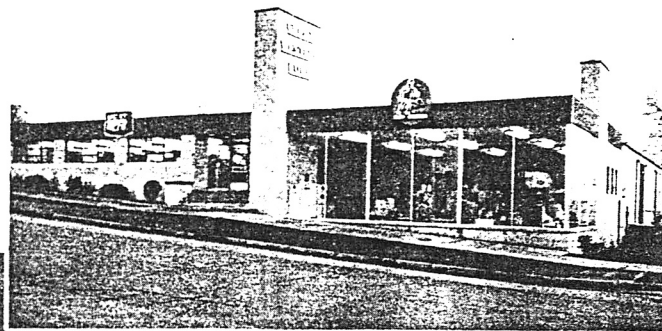
coverage in gas, oil, and coal burners, as well as furnaces and boilers.

We have made changes in the plan of coverage by field men so as to get more responsive contact through dealer activity in all cities and towns. We have reduced our division offices so that the field representatives will contact and work directly with sales department headquarters in Cleveland. This should make for more satisfactory coverage and enable the men to devote more time to selling activities by reducing correspondence and overlapping operations.

We are conducting a series of practical training schools for factory field men and for key men in our dealer organization. Information presented at these schools covers the latest technical developments in heating and power equipment with special emphasis on both oil and gas.

A substantial appropriation has been set up for advertising in publications, such as *The Saturday Evening Post*, *Better Homes & Gardens*, *Time*, *Power*, and several other leading national magazines. These advertisements will carry a convincing story on specific Iron Fireman products. We will continue to assist dealers to develop their local markets by cooperating with them in newspaper advertising. The name Iron Fireman is well established in the stoker field, therefore, the majority of our advertising will concentrate on the outstanding features of Iron Fireman gas- and oil-fired equipment.

A group of dealers at the Cleveland convention examining Iron Fireman's extensive display of heating equipment. Intense interest centered in the new gas and oil fired furnaces and boilers.



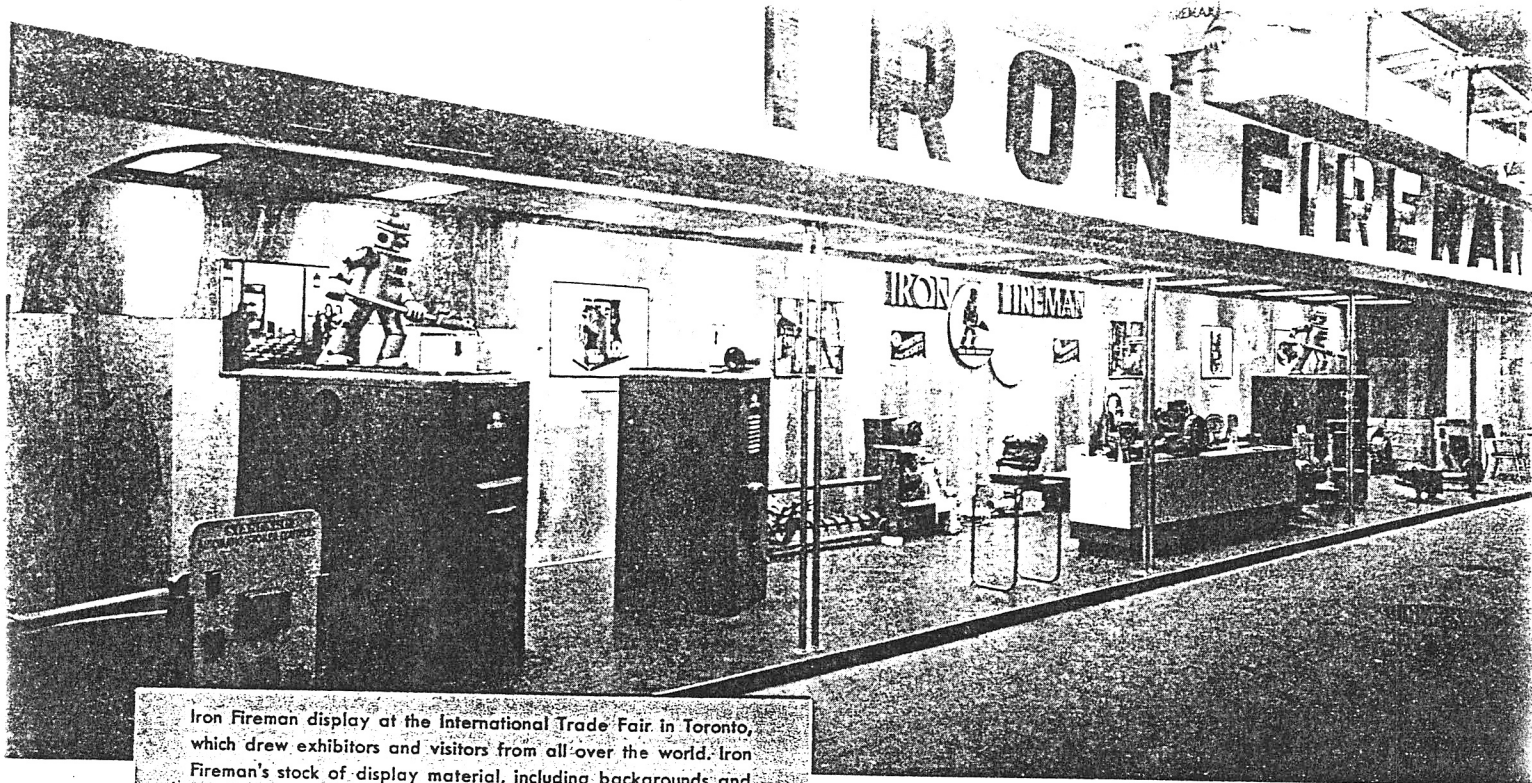
New home of the Great Western Fuel Company, Iron Fireman dealer in Spokane, Washington.

Product Development

Prior to and during the latter part of the World War II period, the Company invested a substantial amount of money in research and development and assigned considerable engineering talent to this project.

Our present field staff has been supplemented by bringing into the organization several new men with a wide background of experience in both the oil and gas burner fields.

The products that were developed as a result of this activity now have had several years of field operation. They have been so well received by thousands of users that we have prepared a special section in this report



Iron Fireman display at the International Trade Fair in Toronto, which drew exhibitors and visitors from all over the world. Iron Fireman's stock of display material, including backgrounds and working cut-away models of equipment, is constantly on the move to fill the needs of dealers in their local fairs and home shows.

entitled, "Report From the Firing Line on Postwar Products."

Early in 1949 we released to the sales organization a number of new products which our engineers had been developing for several years. These products included a new oil-fired furnace for small homes, a new line of industrial stokers and pneumatic spreader stokers for large heating and power plant installation, and a line of commercial and industrial gas burners.

Our primary efforts during the past year have been directed toward restyling and redesigning our gun-type domestic oil burner and our rotary atomizing heavy oil burner. Both pieces of equipment will be released for sale within the near future.

Personnel

As a result of the mutual confidence which exists between labor and management, work at each of our

plants has progressed on schedule and relations with our employees have been carried on satisfactorily during the entire year.

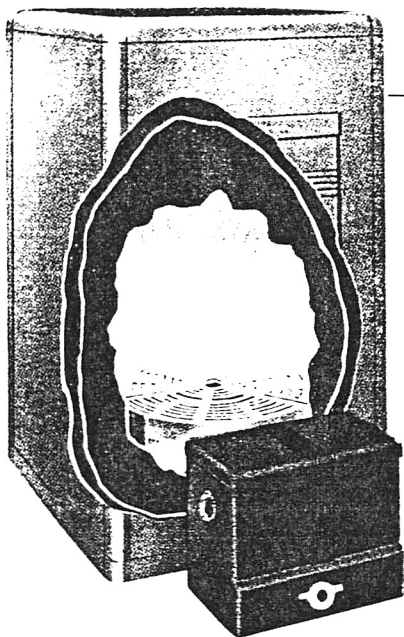
The year 1949 has been a difficult one to plan production schedules; but in line with the policy which we have endeavored to follow over a period of years, every effort has been made, consistent with good business judgment, to provide year-round employment for as many employees as possible. It is felt that this policy has given our employees a sense of security and confidence in the Company and that this attitude has been beneficial to both employees and Company.

Manufacturing

During the year a number of changes were made to consolidate manufacturing activities. These changes were made for the purpose of centering the manufacture of our various products in the areas where they are sold and should enable the Company to benefit from lower handling and shipping costs.

Stokers and other heating equipment for use in the

ON IRON FIREMAN'S POST WAR PRODUCTS



The Iron Fireman Radiant Gas Burner

The same considerations that governed the development of the Vortex oil burner led Iron Fireman engineers to strike out along new lines in the gas field. They again demanded the more efficient *radiant* type of heat source. To accomplish this from the non-radiant blue gas flame they used the principle of the gas mantle, which is very familiar to those who remember the days of gas lighting. Actually, the gas mantle was a far more efficient producer of heat than of light. To make a radiant heat source the flame is produced inside a refractory combustion chamber, made up of specially developed ceramic elements—very porous and light in weight. The elements have a catalytic action in the combustion process and become incandescent (white hot) almost instantly, producing intense radiance.

The second outstanding Iron Fireman development was more effective air control. Iron Fireman's sealed hearth admits air at only one point, and that is the point where it is thoroughly mixed with gas. No excess air is admitted to cool the combus-

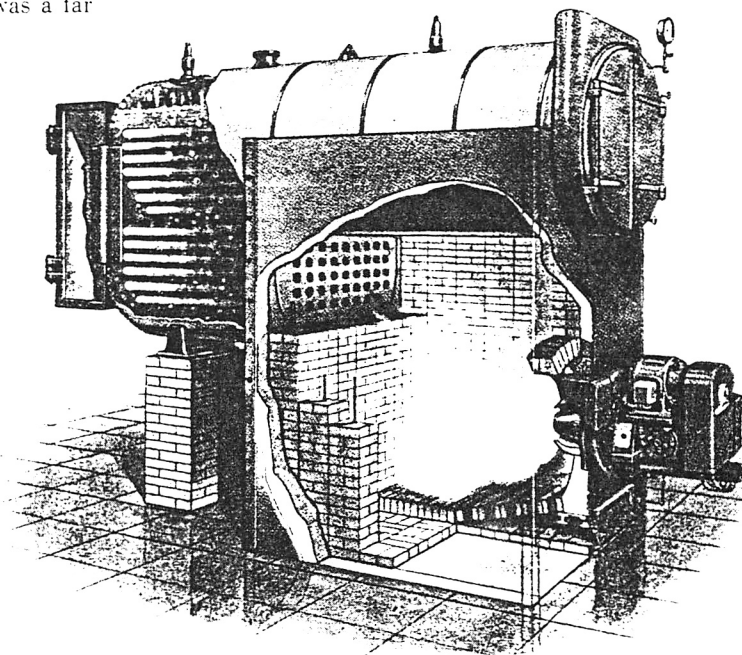
tion chamber and, even more important, there is no blanket of insulating air between the flame and the heating surfaces.

This Iron Fireman engineering has resulted in the most efficient conversion gas burner ever developed. Installed in conventional coal furnaces and boilers, the Iron Fireman Radiant gas burner has produced combustion efficiencies and low stack temperatures (showing that the heat is absorbed within the furnace) never before attained in this type of equipment.

The Iron Fireman line of gas equipment for residential heating includes a complete series of winter air conditioners built around the Iron Fireman gas unit. In the welded steel furnace body Iron Fireman was successful in producing a design that eliminated condensation on the secondary heating surfaces. This did away with the corrosion which had

Latest model of the Iron Fireman Rotary oil burner has many engineering refinements contributing to more efficient operation.

The ability of the Iron Fireman burner to fire all grades of oil is well illustrated by actual operation in the asphalt plant of one of America's biggest oil companies, where by-products of the refining process are used as fuel. This refuse varies from the heaviest oil residues to liquids as light as kerosene. It is fed indiscriminately. Iron Fireman's rotary oil burner takes it as it comes without adjustment or special attention.



hitherto been the greatest source of trouble in steel furnaces. Gas fired boilers in a wide range of sizes are also a part of the Iron Fireman gas line.

The Iron Fireman Rotary Oil Burner

The Iron Fireman Rotary oil burner also blazed a new trail in its field. The problem of handling heavy oil (which when cold resembles road tar) had never been carried to the point of exact, *precision* control of the oil-flow to the burner head. These "residual" oils vary enormously in viscosity even with slight changes in temperature. Existing methods involved ports or valves with viscosity compensating devices or elaborate systems of temperature control. Iron Fireman discarded all of these and came up with a variable volume pump which maintains an absolutely accurate and steady oil flow regardless of the viscosity or temperature of the oil.

The results have been little short of spectacular. Actual on-the-job service over a period of years has demonstrated that this Iron Fireman burner will produce a steady, even, dependable flame with any kind of oil, from lightest to heaviest, and will change from one to the other instantly without special adjustment.

This burner has other outstanding features developed by Iron Fireman which have contributed materially to its success under rugged operating conditions.

Industrial Gas, Gas-Oil and Gas-Oil-Coal Burners

Iron Fireman has developed a ring-type gas burner suitable for many types of industrial applications which is now giving an excellent account of itself. It is especially adapted for use in combination with the Iron Fireman Industrial oil burner and the Iron Fireman Pneumatic Spreader stoker, enabling boiler plants to shift from one fuel to another in the space of a few minutes.

This is a great advantage not only as insurance against emergency fuel shortages, but also enables many owners to take advantage of the very low "dump rates" on gas that prevail in some areas during the summer months. It is also a protection against low gas pressures during periods of peak demand on city gas systems.

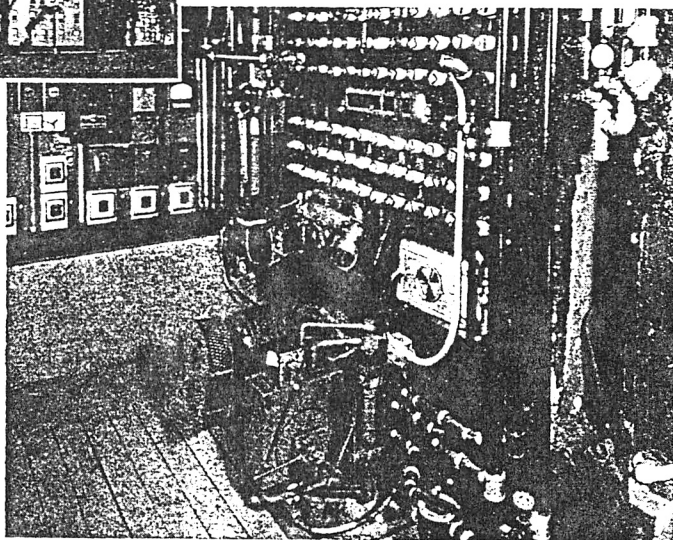
New Developments in Residential Coal Firing

Iron Fireman maintains its leadership in the stoker field. Two improvements in residential stokers are worthy of mention. The first is the down-draft jet, a device for bringing over-fire air to the center of the stoker fuel bed. This improved combustion efficiency to such an extent that fuel savings of 25 per cent have been realized over the old-type stoker. It is an exclusive Iron Fireman feature.

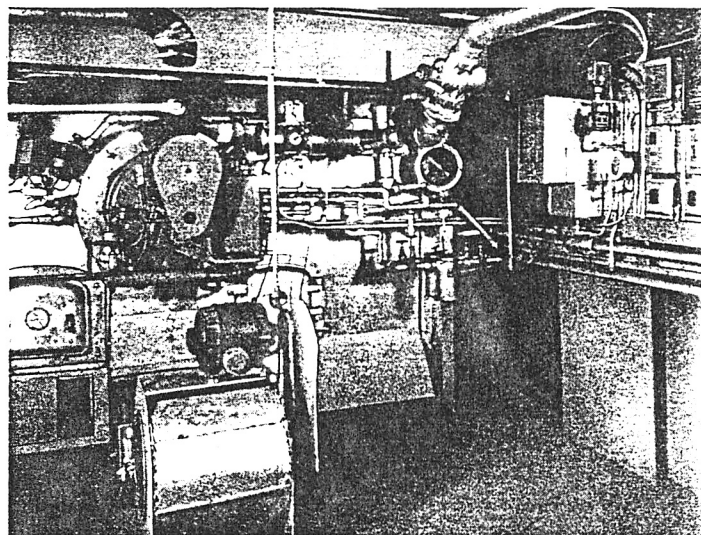
The other development is the exclusive heat resistant, stainless steel tuyere—the metal part that supports the fuel



The Wellington Arms Hotel in Chicago has used Iron Fireman equipment for over 20 years. As a protection against fuel emergencies one boiler is now fired with an Iron Fireman gas-oil combination burner (shown here), while the stand-by boiler is equipped with an Iron Fireman under-feed stoker.



A three-fuel installation in a Chicago laundry. The Iron Fireman industrial oil burner is shown in firing position in the center of the Iron Fireman ring-type gas burner. When switching to coal the nozzle of the Iron Fireman Pneumatic Spreader stoker is inserted in the center of the gas ring. (Coal conveying pipe at upper right.) Fuel change-over is accomplished in a few minutes.



bed. This tuyere is guaranteed for five years, and practically eliminates the principal item in stoker maintenance.

The stoker line also includes winter air conditioning units and boilers which feed coal automatically from coal bin to fire eliminating coal handling.

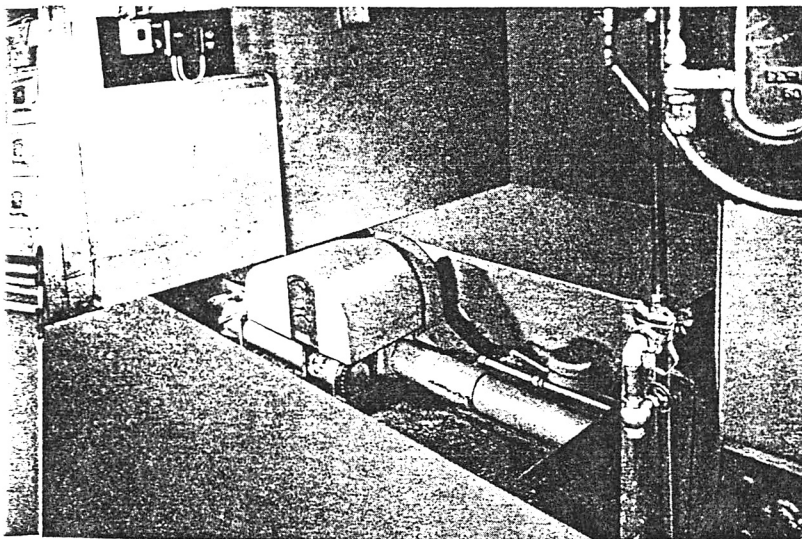
New Commercial and Industrial Stokers

The new Pneumatic Spreader stoker, in general use for the past two years, is considerably larger than any previous stokers built by Iron Fireman. This stoker has a top capacity of 4,000 pounds of coal an hour from each nozzle. It requires no special coal handling equipment. Its pneumatic conveying system feeds coal from the main coal bunkers, which may be situated a considerable distance from the boiler, or even on another floor level.

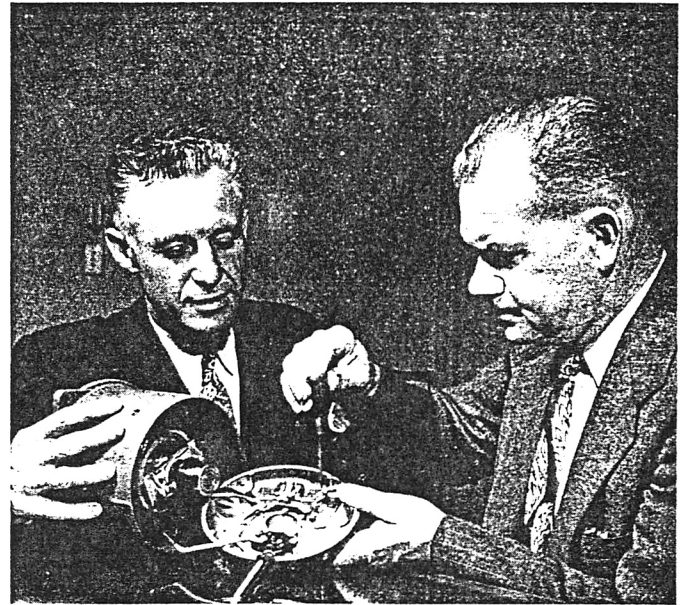
The new features embodied in this Pneumatic Spreader are giving excellent results in many large boiler plants. Among them is an army ordnance plant and one of the important works of a large steel company. These features include a new method of drying the coal on the way to the boiler, permitting the use of very wet coal from outdoor storage piles. Another improvement is an infinitely variable transmission which is synchronized with the air supply to provide a very sensitive automatic adjustment of the fire to conform to the load demands on the boilers.

This improved transmission is also a part of the new

The new Iron Fireman underfeed stoker has important improvements which cut maintenance costs and achieve a far more precise automatic control of fuel and air to keep fire accurately balanced against fluctuating loads. New transmission which applies power to coal feed worm has infinitely variable speed adjustment that automatically synchronizes with air supply and boiler load.



underfeed stokers in the commercial and industrial lines. Still another feature which the underfeeds share with the Pneumatic Spreaders is a greatly improved bunker section, with no driving mechanism within the coal bunker.



An Iron Fireman-built electric motor with the newly developed Iron Fireman Reverswitch, which is the first practical and economical method ever devised for the instant reversal of fractional horsepower single phase motors.

New Products, Control Division

The modern, well equipped plant of Iron Fireman's Control Division is particularly well adapted to light manufacturing in the electrical field, and it has in addition an engineering staff of the highest order. The plant exists primarily for the production of Iron Fireman automatic heating control instruments, but its production capacity (built up during the war) far exceeds the needs of Iron Fireman in these particular lines. The Control Division has therefore devoted a part of its resources to the development and manufacture of other products.

Among these is the Iron Fireman thermostatic control for automatic electric water heaters into which Iron Fireman has introduced some new and exclusive features. It is standard equipment on some of America's best known makes of water heaters.

The Control Division has also set up facilities for producing items which, in the past, were bought from outside companies for use on Iron Fireman heating equipment. This includes the Iron Fireman fractional horsepower motor. A large proportion of Iron Fireman oil burners are now leaving the factory equipped with our own motors. These motors are a high grade product and have proved thoroughly reliable in service. In some respects they are superior to the standard makes formerly used. Permanently lubricated ball bearings make oiling unnecessary throughout the life of the motor.

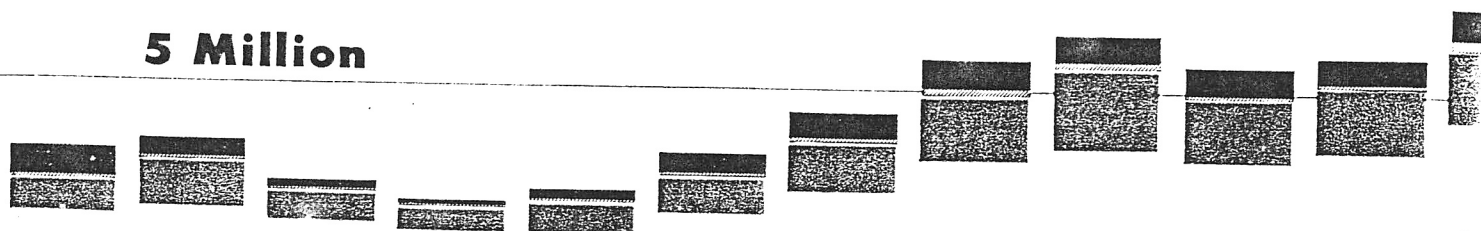
A RECORD OF IRON FIREMAN OPERATIONS SINCE 1929

20 Million

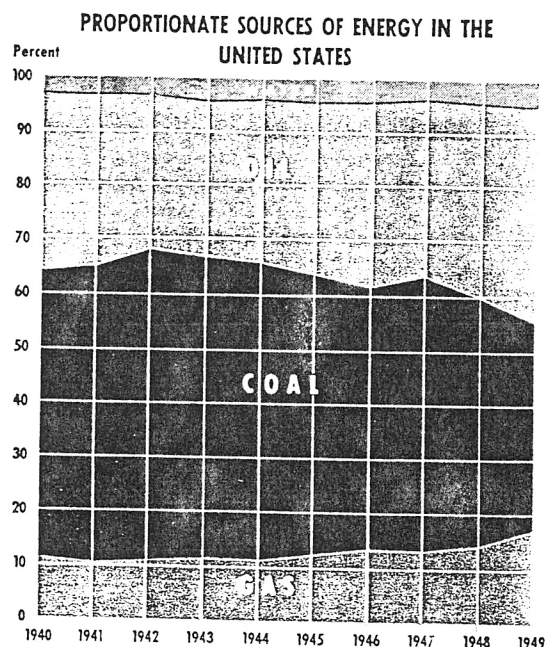
15 Million

10 Million

5 Million

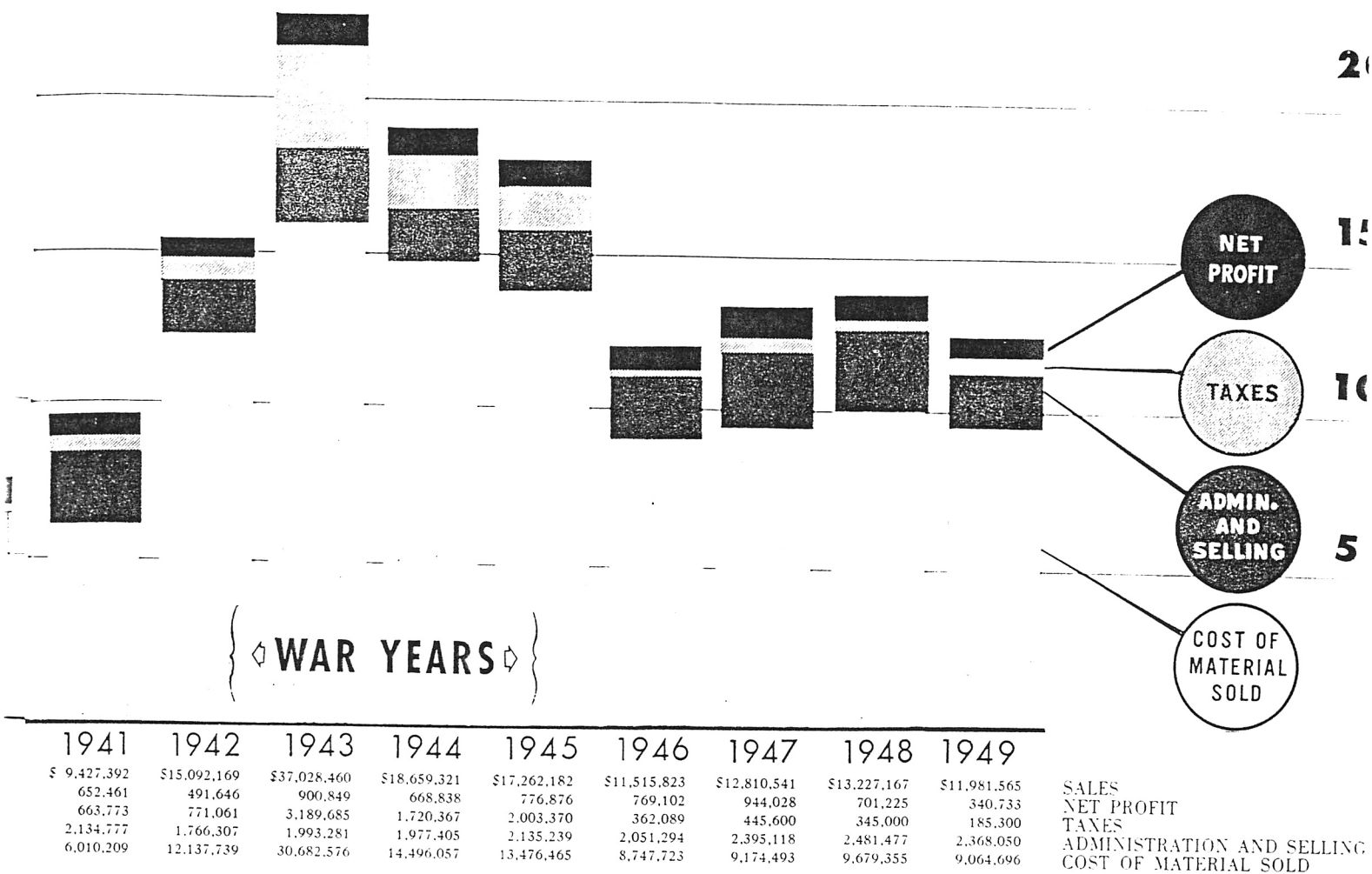


1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
\$ 3,011,937	\$ 3,269,157	\$ 2,235,255	\$ 1,870,751	\$ 2,214,005	\$ 3,188,388	\$ 4,327,807	\$ 5,811,331	\$ 6,538,993	\$ 5,664,425	\$ 5,952,712	\$ 7,111,111
770,947	440,060	90,917	78,679	330,784	521,708	604,646	774,787	711,460	606,901	611,762	711,460
83,000	54,000	22,102	20,700	64,441	85,329	99,439	193,265	191,418	162,065	146,329	146,329
743,074	1,136,056	787,141	656,217	702,097	896,474	1,231,615	1,645,740	1,993,076	1,591,163	1,715,561	1,715,561
1,414,915	1,639,040	1,335,094	1,115,154	1,147,291	1,722,623	2,412,667	3,232,772	3,651,674	3,328,780	3,503,483	4,000,000



The changing fuel situation is well shown in the accompanying graph. Coal is still America's basic fuel, but the extent to which gas and oil are encroaching upon coal's traditional position is evident in the chart at left. This squeeze is taking place not only in the residential field, where the preference for gas and oil is marked, but also in commercial and industrial applications where gas and oil are increasingly used in the larger firing jobs. Iron Fireman has developed products to meet this trend.

Figures for first eight years are from U. S. Bureau of Mines. 1948 and 1949 are latest available estimates from business and government sources.



An Unbroken Record of 67 Iron Fireman Dividends

In its entire corporate history, the Iron Fireman Manufacturing Company has never failed to earn a profit. Since 1929, dividends have been paid every year except 1933, and in 1934 a 50% stock dividend was paid in addition to cash dividends. Since 1933 the Company has paid 64 consecutive quarterly dividends and three special dividends.

Year	Dividend	Year	Dividend	Year	Dividend
1929	\$1.00	1936	\$2.00	1943	\$1.20
1930	1.50	1937	1.50	1944	1.20
1931	1.35	1938	1.20	1945	1.20
1932	.30	1939	1.20	1946	1.20
1933		1940	1.45	1947	1.20
1934	.80*	1941	1.20	1948	1.20
1935	1.00	1942	1.20	1949	1.20

* Plus stock dividend.

CONSOLIDATED BALANCE

IRON FIREMAN MANUFACTURING COMPANY

ASSETS

	December 31	
	1949	1948
CURRENT ASSETS:		
Cash in banks and on hand.....	\$ 1,359,367.32	\$1,531,364.67
Savings bonds held for sale to employees.....	7,702.80	5,193.75
Cash surrender value of life insurance policies.....	341,303.15	311,990.05
Accounts receivable—		
Trade.....	668,304.23	850,774.82
Contracts receivable on equipment installations..... (of which \$199,000 (1949) and \$175,000 (1948) is receivable after one year from balance sheet date)	982,558.57	849,462.55
Other receivables.....	42,502.25	29,258.75
Reserve for doubtful accounts.....	(144,559.26)	(142,507.87)
Inventories of raw materials, work in process and finished products, at average cost or market, whichever lower.....	4,346,944.70	4,000,375.59
Total current assets.....	\$ 7,604,123.76	\$7,435,912.31
CAPITAL ASSETS, at cost:		
Buildings, machinery and equipment.....	\$ 3,309,548.77	\$3,323,538.74
Reserve for depreciation.....	1,251,892.18	1,201,057.34
	\$ 2,057,656.59	\$2,122,481.40
Plant sites.....	272,172.36	272,172.36
	\$ 2,329,828.95	\$2,394,653.76
PATENTS, TRADEMARKS AND COPYRIGHTS.....	1.00	1.00
DEFERRED CHARGES:		
Unexpired insurance premiums, prepaid expenses and supplies.....	127,527.37	147,410.15
	<u>\$10,061,481.08</u>	<u>\$9,977,977.22</u>



SHEET

AND SUBSIDIARY COMPANIES

LIABILITIES

	December 31	
	1949	1948
CURRENT LIABILITIES:		
Notes payable to banks.....	\$ 780,000.00	\$ 200,000.00
Note installments payable to insurance company within one year.....	130,000.00	130,000.00
Accounts payable—trade.....	408,132.70	515,202.90
Accrued payrolls, taxes and expenses.....	434,901.24	443,496.87
U.S. and Canadian taxes on income (estimated)—less U.S. Treasury notes \$100,000 in 1948.....	425,929.28	560,053.56
Total current liabilities.....	\$ 2,178,963.22	\$1,848,753.33
LONG-TERM DEBT (Note 3):		
Note payable to insurance company—unsecured.....	1,240,000.00	1,370,000.00
Payable \$65,000 semiannually from 1950 to 1960, less installments included in current liabilities.....		
DEFERRED FINANCE INCOME.....	53,807.16	45,890.65
RESERVES:		
For product guarantees.....	\$ 25,000.00	\$ 25,000.00
For contingencies.....	15,027.00	15,027.00
	\$ 40,027.00	\$ 40,027.00
CAPITAL STOCK:		
Common stock, without par value—		
Authorized—400,000 shares		
Issued—360,000 shares, less 90 shares in treasury		
Stated value \$5 per share.....	1,799,550.00	1,799,550.00
Excess of amount received over stated value.....	595,650.00	595,650.00
PROFITS RETAINED IN THE BUSINESS, per accompanying statement.....	4,153,483.70	4,278,106.24
	<u>\$10,061,481.08</u>	<u>\$9,977,977.22</u>

CONSOLIDATED STATEMENT OF RESULTS OF OPERATIONS AND PROFITS RETAINED IN THE BUSINESS

	YEAR ENDING DECEMBER 31	
	1949	1948
Net sales.....	\$11,981,565.37	\$13,227,167.92
Deduct:		
Cost of sales.....	\$ 8,766,587.26	\$ 9,387,671.64
Depreciation.....	332,621.12	325,129.72
Selling, administrative and general expenses.....	2,339,680.68	2,449,867.85
	<u>\$11,438,889.06</u>	<u>\$12,162,669.21</u>
	\$ 542,676.31	\$ 1,064,498.71
Other income.....	38,059.53	35,368.27
Portion of reserve for income and excess profits taxes of prior years no longer required..	29,161.98	29,808.67
Interest and debt expense.....	(83,864.24)	(83,450.60)
	<u>\$ 526,033.58</u>	<u>\$ 1,046,225.05</u>
Provision for U. S. and Canadian taxes on income.....	185,300.00	345,000.00
Profit for year.....	<u>\$ 340,733.58</u>	<u>\$ 701,225.05</u>
Profits retained in the business at beginning of year.....	4,278,106.24	4,008,758.19
	<u>\$ 4,618,839.82</u>	<u>\$ 4,709,983.24</u>
Deduct—		
Unrealized exchange loss arising from devaluation of Canadian dollar.....	(33,477.62)
Dividends paid in cash.....	(431,878.50)	(431,877.00)
Profits retained in the business at end of year (Note 3).....	<u><u>\$ 4,153,483.70</u></u>	<u><u>\$ 4,278,106.24</u></u>

Auditors Report...

February 14, 1950

TO THE BOARD OF DIRECTORS OF
IRON FIREMAN MANUFACTURING COMPANY:

We have examined the consolidated financial statements of Iron Fireman Manufacturing Company and its subsidiaries relating to the year ending December 31, 1949. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying consolidated balance sheet and related statement of operations present fairly the position of Iron Fireman Manufacturing Company and its subsidiaries at December 31, 1949, and the results of their operations for the year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

PRICE, WATERHOUSE & CO.

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1949

NOTE 1: Net assets of the Canadian subsidiary included in the consolidated balance sheet in U. S. dollars at appropriate rates of exchange amount to \$894,995.24, of which \$563,836.79 represents net current assets. The profit of this subsidiary amounting to \$82,595.00 has been included in the consolidated results of operations; no dividend was received during the year. The consolidated profits retained in the business include \$857,094.22 of undistributed profits of the Canadian subsidiary.

NOTE 2: Federal tax returns for the years up to and including the year 1944 have been examined and the additional taxes assessed have been paid.

NOTE 3: The insurance company loan agreement provides, among other things, that (1) the consolidated net working capital of the Company and its wholly-owned domestic subsidiaries shall be maintained at not less than \$2,000,000, and that (2) dividends paid after December 31, 1947 (except in shares of the Company's capital stock) plus payments on principal of the note shall not exceed consolidated net income of the Company and its wholly-owned domestic subsidiaries since that date plus \$900,000, and provided the consolidated net working capital of the Company and its wholly-owned domestic subsidiaries is or after giving effect to the dividend would be not less than \$3,000,000. At December 31, 1949, the amount of \$766,153.62 of profits retained in the business is available for payment of dividends.

IRON FIREMAN MANUFACTURING COMPANY

OFFICERS

President and General Manager: *T. H. Banfield*
Vice-President and Treasurer: *Frank S. Hecox*
Vice-President in Charge of Mfg.: *H. C. Carter*
Secretary: *C. W. Snider*
Assistant to the President: *Lewis J. Cox*
Assistant Secretary: *C. C. Craft*
Assistant Secretary: *Omar C. Spencer*
Assistant Secretary: *David L. Davies*

DIRECTORS

T. H. Banfield
Frank S. Hecox
Omar C. Spencer
Roy L. Shurtleff
T. Henry Boyd

VOTING TRUSTEES

T. H. Banfield *Frank S. Hecox* *E. C. Sammons*
Roy L. Shurtleff *T. Henry Boyd*

DOMESTIC SUBSIDIARY—IRON FIREMAN CORPORATION

OFFICERS

President: *C. T. Burg*
Vice-President: *E. C. Webb*
Secretary-Treasurer: *C. W. Snider*
Assistant Secretary: *R. E. Klein*
Assistant Secretary: *H. R. Millikin*

DIRECTORS

C. T. Burg
T. H. Banfield
E. C. Webb

COUNSEL

Hart, Spencer, McCulloch, Rockwood & Davies

TRANSFER AGENTS AND REGISTRARS FOR STOCK

The Bank of California, N. A., San Francisco
Wells Fargo Bank and Union Trust Company, San Francisco
Continental Illinois National Bank & Trust Company, Chicago
First National Bank, Chicago

PLANTS AND OFFICES

General Offices: 4784 S.E. 17th Avenue, Portland, Oregon

Manufacturing Units:

4784 S.E. 17th Avenue, Portland, Oregon
2838 S.E. 9th Ave., Portland, Oregon

3170 West 106th St., Cleveland, Ohio
80 Ward St., Toronto, Canada

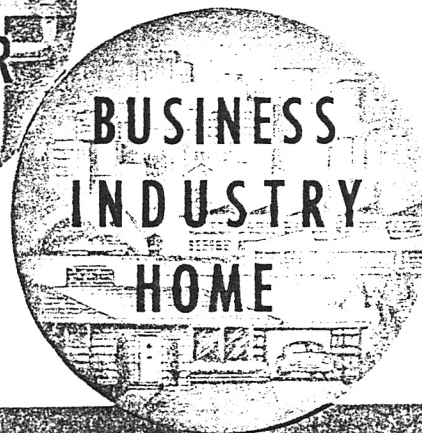
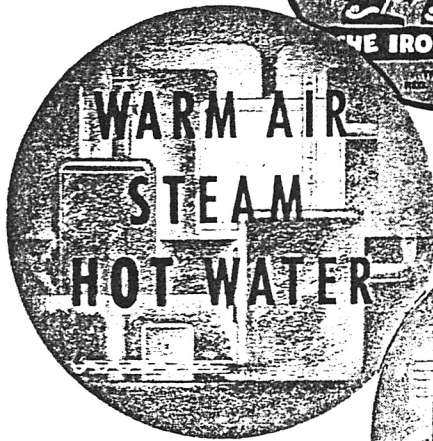
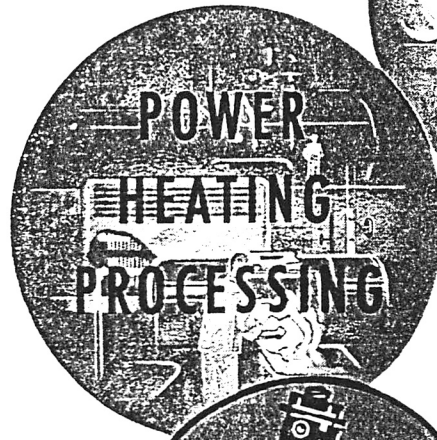
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